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| APPLICATION NO.                 | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---------------------------------|-------------|----------------------|---------------------|------------------|
| 10/526,671                      | 03/04/2005  | Dong-Hae Ye          | 123014-05024308     | 3156             |
| 22429                           | 7590        | 09/19/2007           | EXAMINER            |                  |
| LOWE HAUPTMAN HAM & BERNER, LLP |             |                      | SINGH, SUNIL K      |                  |
| 1700 DIAGONAL ROAD              |             |                      | ART UNIT            |                  |
| SUITE 300                       |             |                      | PAPER NUMBER        |                  |
| ALEXANDRIA, VA 22314            |             |                      | 3732                |                  |

  

|            |               |
|------------|---------------|
| MAIL DATE  | DELIVERY MODE |
| 09/19/2007 | PAPER         |

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

**Office Action Summary**

|                 |                |              |              |
|-----------------|----------------|--------------|--------------|
| Application No. | 10/526,671     | Applicant(s) | YE, DONG-HAE |
| Examiner        | Sunil K. Singh | Art Unit     | 3732         |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE \_\_\_\_ MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) Responsive to communication(s) filed on 19 July 2007.
- 2a) This action is FINAL.                            2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) Claim(s) 2-6 is/are pending in the application.
  - 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_ is/are allowed.
- 6) Claim(s) 2-6 is/are rejected.
- 7) Claim(s) \_\_\_\_ is/are objected to.
- 8) Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on \_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) All    b) Some \* c) None of:
    1. Certified copies of the priority documents have been received.
    2. Certified copies of the priority documents have been received in Application No. \_\_\_\_.
    3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) Notice of References Cited (PTO-892)
- 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_.
- 4) Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_.
- 5) Notice of Informal Patent Application
- 6) Other: \_\_\_\_.

## DETAILED ACTION

### ***Specification***

1. The abstract of the disclosure is objected to because the amendment to the abstract is not presented on a separate sheet of paper. According to 37 CFR 1.72, the abstract must be presented on a separate sheet of paper.

### ***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 2-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Guillaume et al. (US 6,468,078) in view of Andreiko (US 5,752,826) and in further view of Hammesfahr et al. (US 4,867,682).

Guillaume et al. discloses a dental tray that includes: a main body with a knob (Figs. 1,2,5); a molding part (4) having a wall provided with a first engagement feature (7) and another wall with a second engagement feature (6); a connection segment (5) having a third engagement feature capable to be engaged with a first engagement section (7) and a fourth engagement feature capable of engaging the second engagement feature (6) (see Fig. 6); wherein the first engagement portion (7) is an interlocking tab (Fig. 6) and the second engagement portion (6) is a protrusion (Fig. 6); wherein the third engagement feature is an interlocking opening (the hole wherein

element 7 is located in Fig. 6) and the fourth engagement feature is a recess (hole formed at element 6 in Fig. 6); wherein the connection segment (5) is assembled to the molding part engaging the first and second engagement features with the third and fourth engagement features, respectively. However, Guillaume et al. fails to disclose a dental tray being made of aluminum and a connection segment being made of resilient transparent synthetic resin.

Andreiko teaches a dental tray being made of aluminum in order to give the tray the necessary rigidity while still allowing for the tray to be formed manually by an orthodontist (Column 7, Lines 43-49). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Guillaume with a tray being made of aluminum, as taught by Andreiko, in order to provide an orthodontist with a tray that is rigid yet still capable of being easily manipulated by the orthodontist. However, Guillaume/Andreiko fails to disclose the connecting segment being made of resilient transparent synthetic resin.

Hammesfahr et al. teaches a dental tray being made of a resilient transparent synthetic resin (transparent plastic) in order to provide a tray having a material that allows passing and transmission of visible light (see Abstract, Column 5, Lines 5-17). It would have been obvious to one having ordinary skill in the art at the time the invention was made to produce Guillaume's/Andrieko's connection segment with a transparent synthetic resin, as taught by Hammesfahr, in order to provide a connection segment that is made of a material that allows transmission of visible light. Furthermore, it would have been obvious to produce Guillaume's/Andrieko's connection segment with a

transparent synthetic resin (such as plastic), since it is well known that plastic materials are cheap and easy to manufacture.

***Response to Arguments***

4. Applicant's arguments been considered but are moot in view of the new ground(s) of rejection.

***Conclusion***

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. See PTO-892 Form.
6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sunil K. Singh whose telephone number is (571) 272-3460. The examiner can normally be reached on Monday-Friday 8:30am-5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Cris L. Rodriguez can be reached on (571) 272-4964. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Sunil K Singh  
Examiner  
Art Unit 3732

SKS  
09/14/2007



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